

In the Claims:

Please cancel Claim(s) 22-25, 27 and 28; and,

Please add new Claim(s) 29-35, as follows:

CLAIMS

I claim:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)

16. (Withdrawn) In an object detection radar device, an electronic control system that controls the effective shape of the object detection zone by utilizing electronically controlled transmitted power variation in the radar transmitter circuitry to vary the transmitted power as a function of the instantaneous search range and thereby effectively shaping the detection zone of the radar as a function of range.
17. (Withdrawn) The device of claim 16 where the said control system varies power by digital control using circuitry selected from a group consisting of: digital circuitry, analog circuitry, or a combination thereof.
18. (Withdrawn) The device of claim 16, wherein the electronic control system comprises electronics selected from the group consisting of: an electronically controlled attenuator and an electronic-gain-controlled amplifier.
19. (Withdrawn) In an object detection radar device having radar transmitter circuitry and radar receiver circuitry, an electronic control apparatus adapted to vary the shape of the detection zone of the radar as a function of distance from the transmitter by dynamically adjusting the gain of a radar during its range sweep cycle by a system comprising tuning of transmitter power.
20. (Canceled)
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)

- 27. (Canceled)
- 28. (Canceled)
- 29. (New) A method to dynamically change the shape of the detection zone pattern in an object detection radar system, comprising:
 - adjusting gain of the radar system by applying a specified different gain correction at specified different ranges during the radar system's range sweep cycle.
- 30. (New) The method of Claim 29 wherein the gain is dynamically adjusted by tuning the radar system's receiver sensitivity.
- 31. (New) The method of Claim 29 wherein the gain is dynamically adjusted by tuning the radar system's transmitter power.
- 32. (New) The method of Claim 29 wherein the gain is dynamically adjusted in an RF receiver portion of the circuitry of the radar system.
- 33. (New) The method of Claim 29 wherein the gain is dynamically adjusted in an RF-to-IF portion of the receiver circuitry of the radar system.
- 34. (New) The method of Claim 29 wherein the gain is dynamically adjusted in a signal processor portion of the receiver circuitry of the radar system.
- 35. (New) The method of Claim 29 wherein the gain is dynamically adjusted by transmitted power variation in the transmitter circuitry of the radar system.